



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

C3-3-4
Job Sheet 178512



Part No: C3-3-4

Job Qty: 20 ea

Part Name: Link Pin



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/1/18

Job Tracking No:

Due Date: 6/8/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG C3-3-4 Rev 1A IPP Rev A 18.04.06 new issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup	Run	Workcenter / Supplier	Lead Time	
90	Start up Operation	20 Ea		6/8/18	0.00	0.00	Start Up Machining-3		
110	Mori Seiki	20 pcs		6/8/18	0.00	1.33	MORI SL-154		
120	QC	20 pcs		6/8/18	0.00	0.00	QC2 Machining-4		
130	QC	20 pcs		6/8/18	0.00	0.00	QC8 Machining-4		
135	Outsource	20 pcs		6/8/18			ATL002-VC <i>Metrog</i>		
140	Outsource	20 pcs		6/8/18			GRO002-VC		
150	Packaging	20 pcs		6/8/18	0.00	0.00	Packaging2		
160	QC	20 pcs		6/8/18	0.00	0.00	QC6		
210	Packaging	20 pcs		6/8/18	0.00	0.00	Packaging3-1		
220	QC21-SA	20 Ea		6/8/18	0.00	0.00	QC21		

Part Op 110 - 1-Machine as per folio FC049 FOLIO REV: 48 DWG REV: 1A 2-Debur

Descriptions: 135 - 1--Issue P/O to Atlantic Heat Treat; P/O 0405100 RC 53-56 2-Bead blast 3- Certificate of Conformity is required ***NOTE*** DROP SHIP TO FINISHER Atlantic Heat Treat to ship directly to Groupe Altech***

140 - -Issue P/O to Groupe Altech: P/O 040673 -Nickel plate, QQ-N-290, Class 2, Grade E or F -Nickel Plate .0004-.0006 -Bake after plating -Certificate of Conformity is required

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-O1-R0.125	Tool Steel Round Bar 0.125 dia.	1.1500 ft (.0575 ea)	90-Start up Operation	<u>S 060422</u>

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-O1-R0.125	1	10	0

Part Specifications



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

be found.

Container No: S094866



Part: C3-3-4

Job No: 178512

Serial No/Batch: S094866

Revision: 1A

Inspector:

Exp Date:

Instructions:

Plex 6/1/18 9:18 AM Dart.lajeunesse.marie

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

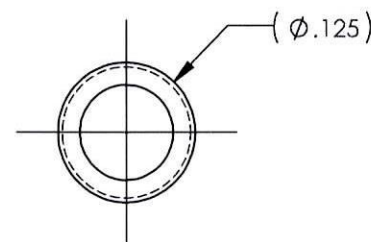
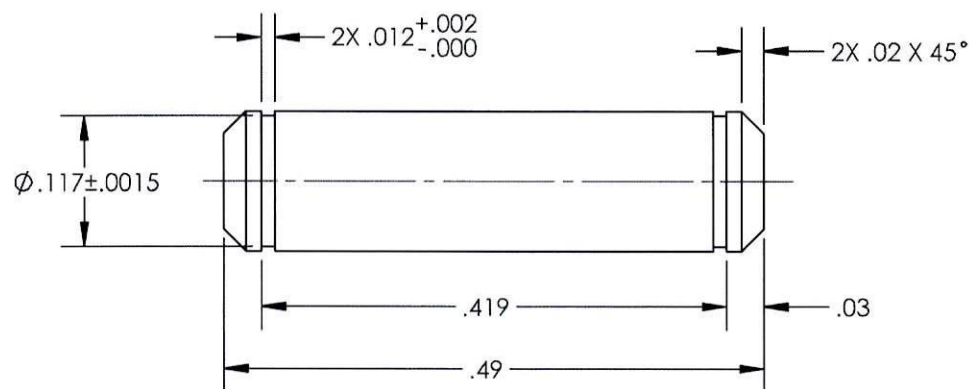
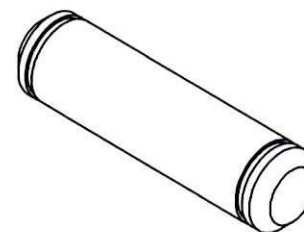
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CH'D MATERIAL FROM 01 TO DRILL ROD.	8/17/2012	JAG	
1A	14-0111	CH'D TITLE BLOCK WAS RED BARN IS DART. ADDED BAG & LABEL NOTE. CH'D DIMENSION WAS .487 IS .49, WAS .034 IS .03.	8/6/2014	DJN	RW



NOTE:
1. BAG & LABEL WITH BATCH NUMBER.
2. NICKEL PLATE .0004-.0006 BAKE AFTER PLATING.

DART AEROSPACE	
TITLE LINK PIN	
DWG NO. C3-3-4	REV 1A
MAT'L DRILL ROD	DRAWN BY: CANAM
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005	HEAT TREAT RC 53-56
.XX ± .01	FINISH SEE NOTE 2
.X ± .1	SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE 6:1	DATE 11/8/2001
SHEET 1 OF 1	

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			C3-3-4	1	LINK PIN	DRILL ROD	Ø1/8 X 5/8	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO040566**

Supplier: MEI001-VC
Metcor Inc.
560 Boul. Arthur Sauve
Saint-Eustache
QC
J7R 5A8 Canada
Phone: 450 473 1884
Fax: 450 491 5498

PO No: PO040566
PO Date: 7/23/18
Due Date: 8/8/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Tsimiklis, ChrisoulaPhone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pynt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	177501	C3-12-1	Lock Bushing 1-Issue P/O to Metcore ; P/O _____ Part is 4140 Heat treat to 44-46 RC Metcor to ship directly to Groupe Altech	Firmed	-	8/8/18	20 pcs	0 pcs	20 pcs	\$7.50/pcs	\$150.00
	180446			Firmed	-	8/8/18	20 pcs	0 pcs	20 pcs	\$7.50/pcs	\$150.00
Sub Total:							40	0	40		\$300.00

2	178512	C3-3-4	Link Pin 1-Issue P/O to Metcor; P/O _____ RC 53-56 2-Bead blast 3- Certificate of Conformity is required ***NOTE*** DROP SHIP TO FINISHER Metcor to ship directly to Groupe Altech*** Mat'l Drill Rod (A-2)	Firmed	-	7/31/18	20 pcs	0 pcs	20 pcs	\$15.10/pcs	\$302.00
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Grand Total: \$602.00

Order Notes

Order Notes**Procurement Quality Clauses**

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A022 Apical Processing

A024 process certifications

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 7/25/18 7:59 AM dart.tsimiklis.chrisoula

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC J7R 5A8
Tel: 450-473-1884 / Fax: 450-491-5498

Reçu de livraison

Delivery Receipt

BON DE TRAVAIL Order	EXPÉDITEUR Shipper ID	BON D'EXPÉDITION Shipper
329320	1	129933

EXPÉDITION COMPLÈTE / Shipped Complete

CLIENT /Customer 215

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053

LIVRÉ À /Shipped To

GROUP ALTECH
2455 ALPERN
ST LAURENT, QC H4S1N9
Ph: 613-632-5200
Fax: 613-632-1053

329320-1

COMMANDE DU CLIENT Customer PO	BON DE LIVRAISON DU CLIENT Customer Shipper No.	TYPE DE MATÉRIEL Material Type	DATE DE LA COMMANDE Order Date	TRANSPORTEUR Carrier
40566		A2	7/23/2018	CLIENT

QUANTITÉ Quantity	No. PIÈCE / Part No.	NOM DE LA PIÈCE / Part Name	DESCRIPTION DE LA PIÈCE Part Description	POIDS Weight
----------------------	-------------------------	--------------------------------	---	-----------------

20 C3-3-4

(20)C3-3-4 JOB 178512

.05

1 SAC DE PAPIER

TYPE DE CONTENEUR Container Type	# DE CONTENEURS # Of Containers	COMMENTAIRES CONTENEUR Container Comments
SAC DE PAPIER	1	

certificat

EMPAQUETAGE Packing	
-------------------------------	--

QUANTITÉ EXPÉDIÉE / Quantity Shipped : 20

POIDS EXPÉDIÉ / Weight Shipped : 0.05

QUANTITÉ RESTANTE / Quantity Remaining : 0

POIDS RESTANT / Weight Remaining : 0.00

certificat

QUANTITÉ EXPÉDIÉE /Quantity Shipped: 20

POIDS EXPÉDIÉ / Weight Shipped : 0.05

Signature:

Date:

EXPÉDIÉ LE / Shipped On : **07/30/2018**

METCOR INC. COPIE

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGE load
329320	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

GROUP ALTECH

2455 ALPERN

ST LAURENT

QC H4S1N9

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
40566	N/A	A2		
<u>SPÉCIFICATIONS DU PROCÉDÉ</u> processing specifications				
VAC HARDEN				
HARDEN AND TEMPER				
EXIGENCE / requirement	SPÉCIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results	
HARDNESS	54 - 56 HRC	DAS 61 9.89	5	54 - 55 HRC MESURE EN HR15N = 87,4-87,9 HR15N
QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description		
20	0.05	C3-3-4 (20)C3-3-4 JOB 178512 1 SAC DE PAPIER		

COMMENTAIRES / comments

VAC HARDEN 1800F, 1 HR
DOUBLE TEMPER 750F, 3 HRS

Heat treatment (HT) was performed with equipment that meets the requirements of requested specification. All HT operations were performed in compliance with the required HT specification and all verifications have been performed and documented. No unauthorized changes were performed in regards to the HT. We certify that the material was manufactured, sampled, tested and inspected in accordance with the material specification and the purchase order and was found to meet the requirements.

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Le traitement thermique (TT) a été fait en utilisant des équipements en conformité avec la spécification demandée. Toutes les opérations de TT ont été faites en conformité avec les requis de la spécification demandée et toutes les vérifications et les tests demandés ont été faites et documentés. Aucun changement n'a été faite par rapport au TT. On certifie que le matériel a été fabriqué, échantillonné, testé et inspecté en accord avec les spécifications du matériel et le bon de commande et le matériel rencontre les exigences spécifiées.

Ce document et les documents qui lui sont joints peuvent contenir des informations confidentielles, être soumis aux réglementations relatives au contrôle des exportations ou ayant un caractère privé. S'ils ne vous sont pas destinés, nous vous signalons qu'il est strictement interdit de les divulguer, de les reproduire ou d'en utiliser de quelque manière que ce soit le contenu. Toute exportation ou réexportation non autorisée est interdite.

Isabel Otero
QA Technician



03 AOUT 2010



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO040672**

Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO040672

PO Date: 8/1/18

Due Date: 8/8/18

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pynt Terms: Net 30

Freight Terms:

Special Comments:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	178512	C3-3-4	Link Pin -Issue P/O to Groupe Altech: P/O _____ -Nickel plate, QQ-N-290, Class 2, Grade E or F -Nickel Plate .0004- .0006 -Bake after plating -Certificate of Conformity is required	Firmed	-	8/8/18	20 pcs	0 pcs	20 pcs	\$12.00/pcs	\$240.00
DAS 61 9-89 20 X AUG 08 2018 											
Grand Total:											\$240.00



Certificat de Conformité / Certificate of Compliance

(011487-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

011487 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

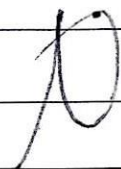
Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.		Bon de commande Client Customer Purchase Order No.				
03-Aug-2018		Aman			040672				
#Ligne Line#	No. de Série / # Pièce Part Number /Line Item Details Job # / Ref #	Description pièce(s)		CATG. U/M	Quantités / Quantities				
					Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	C3-3-4 Rev. ✓	C3-3-4 01 -E-NIC STEEL 200 [E-NICKEL STEEL 200] QQ-N-290 CLASS 2 GRADE E OR F 0.0004-0.0006 THICK BAKE AFTER PLATING		E-NICKEL STEEL CH	20	20	0	0	0

Notes Additionnelles / Additional Notes

Épaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By



Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.